

Attorney's Docket No.: 13751-056001

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Dinah W.Y. Sah et al. Art Unit: 1647

Serial No.: 10/661,984 Examiner: Robert S. Landsman

Filed: September 12, 2003 Conf. No.: 9412

Title : NOVEL NEUROTROPHIC FACTORS

## Mail Stop Amendment

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## SUPPLEMENTAL RESPONSE

This supplemental response is filed subsequent to the Amendment and Response to Office Action filed on May 19, 2006.

Applicants thank the Examiner for the helpful telephone interview with the undersigned on June 22, 2006. Applicants' response to the utility rejection was discussed during that interview. The Examiner suggested that applicants submit the present supplemental response to address several issues that may facilitate resolution of the outstanding rejection.

## Art Acceptance of Assays Described in the Specification

As detailed in the response filed on May 19, 2006, neublastin (also known as artemin) was determined to be a member of the GDNF ligand subfamily of neurotrophic factors and was shown to exhibit neurotrophic activity. All members of the GDNF ligand subfamily (GDNF, neurturin, persephin, and neublastin) signal through the RET receptor tyrosine kinase but differ in their affinities for a family of neurotrophic RET co-receptors, the GFR $\alpha$  receptors. Unlike other GDNF ligands (which preferentially bind to a complex containing RET and GFR $\alpha$ 1, GFR $\alpha$ 2, or GFR $\alpha$ 4), neublastin exhibits high affinity for the GFR $\alpha$ 3-RET receptor complex.

The application as filed contains experimental findings demonstrating that the mature form of human neublastin promotes survival of dopaminergic neurons (Examples 6 and 7) and dorsal root ganglion cells (Example 8) and that selected truncates (NBN 104, NBN 102, and

CERTIFICATE OF MAILING BY EXPRESS MAIL
Express Mail Label No. EV 915265692 US
July 5, 2006
Date of Deposit